Brian McInerney
Hydrologist
National Weather Service

Hydrologic Outlook
March 2004

Overview

- Water Supply forecasts for March 1st are expected to produce normal to below normal flows this spring. The amounts are based on basically two physical parameters at this time: snowpack and soil moisture. Snowpack volumes range from above normal amounts in the south, and normal to below in the northern half of the state. The Virgin, Escalante, and Tooele river basins, including the Wasatch front, and the eastern Uinta mountain ranges currently have the largest snowpacks compared to average in the state. Total snow accumulation statewide to this date has been a major improvement over past years. However, soil moisture levels are lower than normal due to the dry fall months of 2003. Expected loss to soil moisture infiltration can be expected to be approximately 10 percent higher than normal loss.

- Other aspects of the spring runoff that are yet to be known include the amount of snow collected during the remainder of March, and the spring climate. Depending on temperature levels and precipitation amounts this spring, spring runoff numbers can vary 25% in either direction depending on the climate.

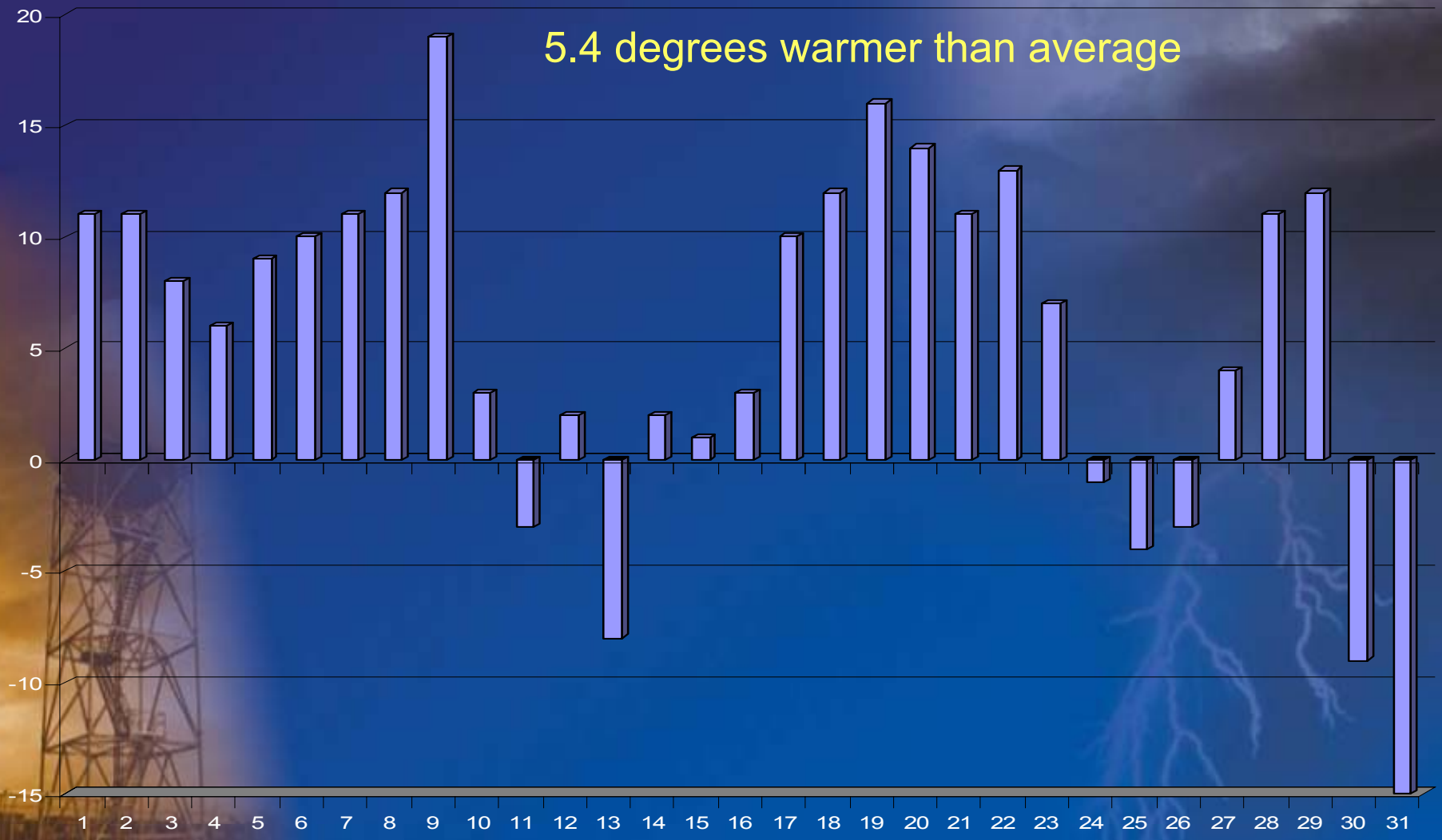
- If the spring climate produces a cool wet spring through May and then warms significantly, we can expect a much more efficient runoff and a higher yield. If the climate is somewhat warm and somewhat cool, with a lack of precipitation, then expect these numbers to decline. The spring climate scenario will become clearer as we move closer to April 1st.

Hydrologic Outlook

- Temperature

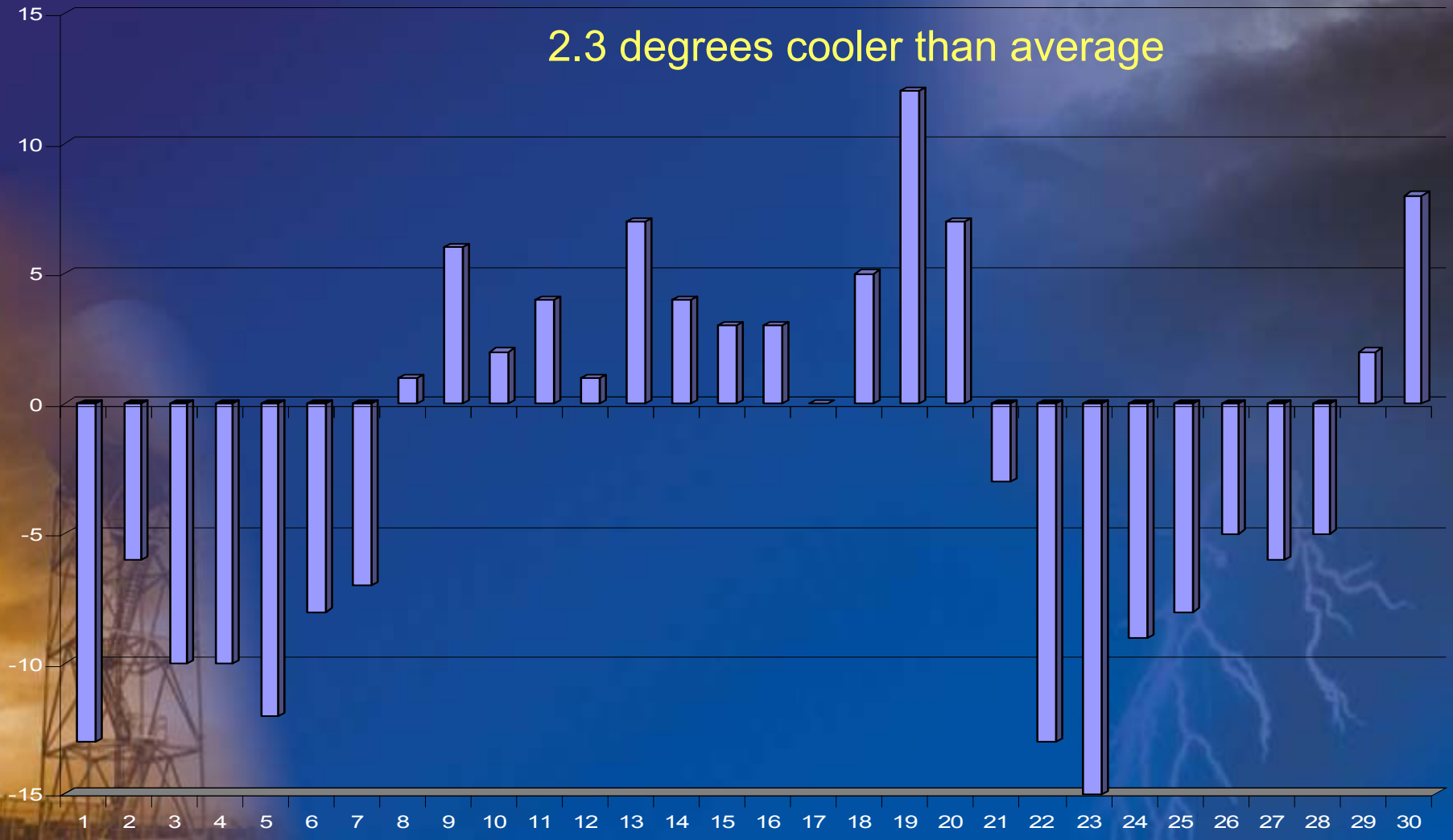
October

Salt Lake City Temperature Departure from Normal



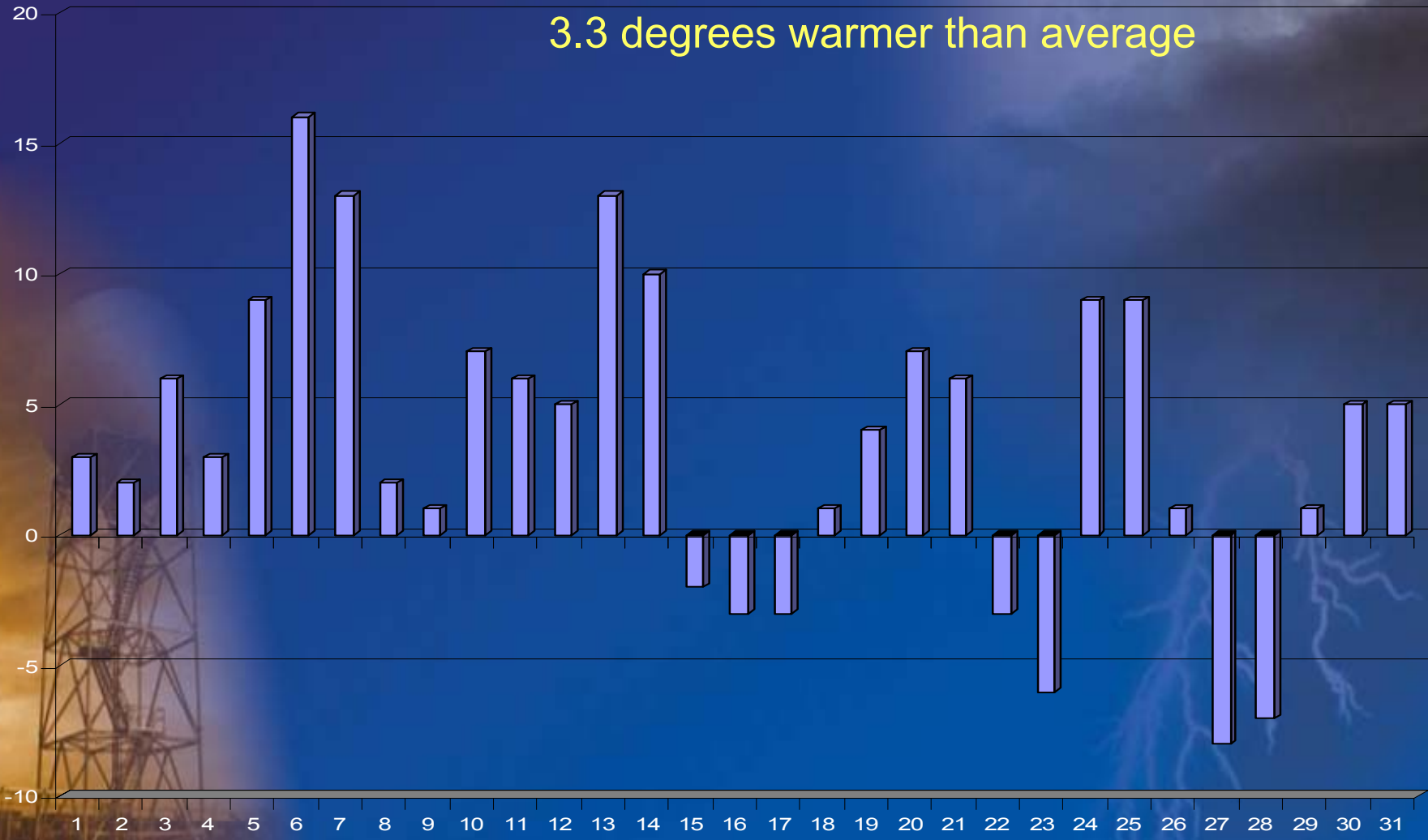
November

Salt Lake City Temperature Departure from Normal



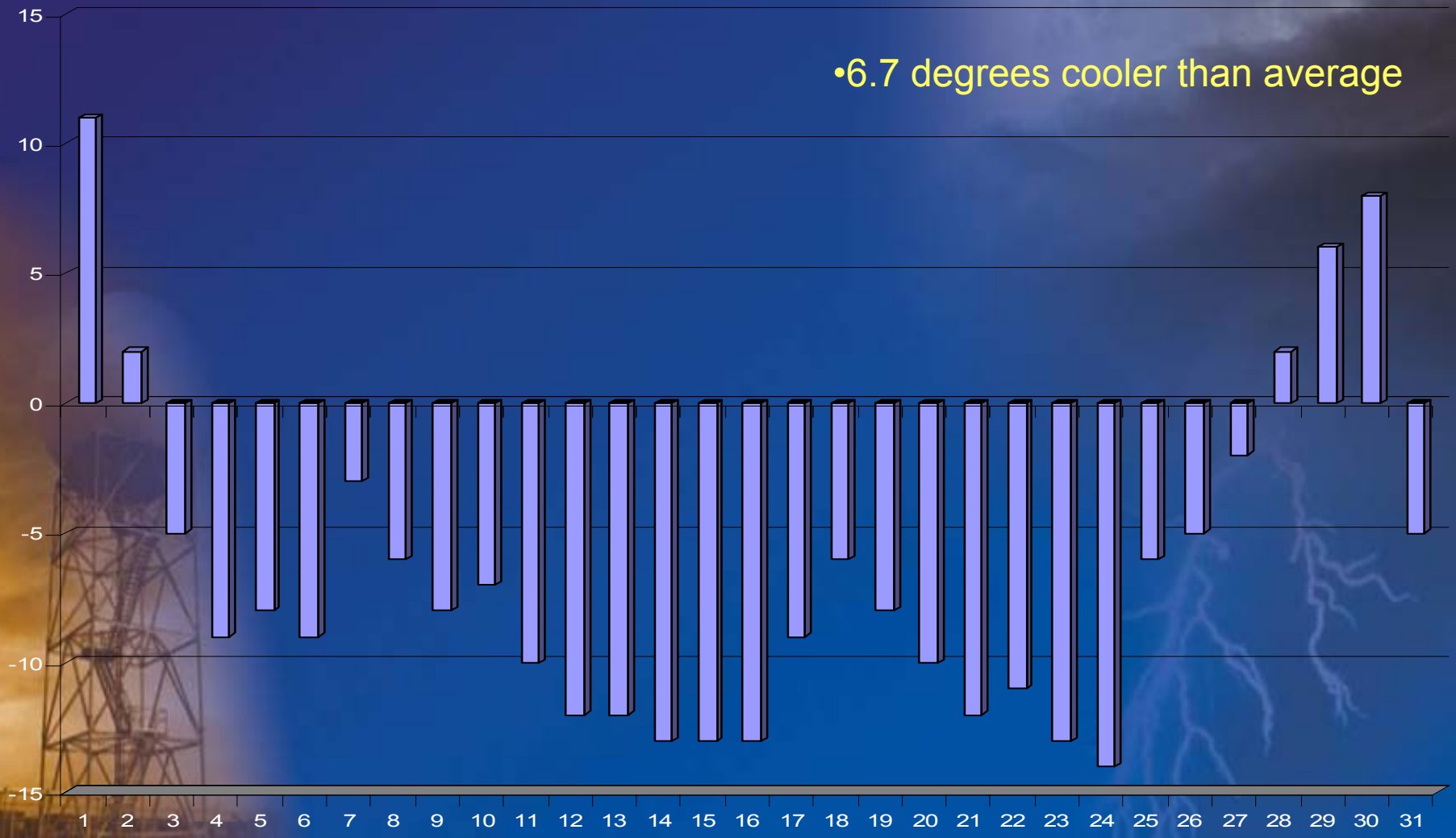
December

Salt Lake City Temperature Departure from Normal



January

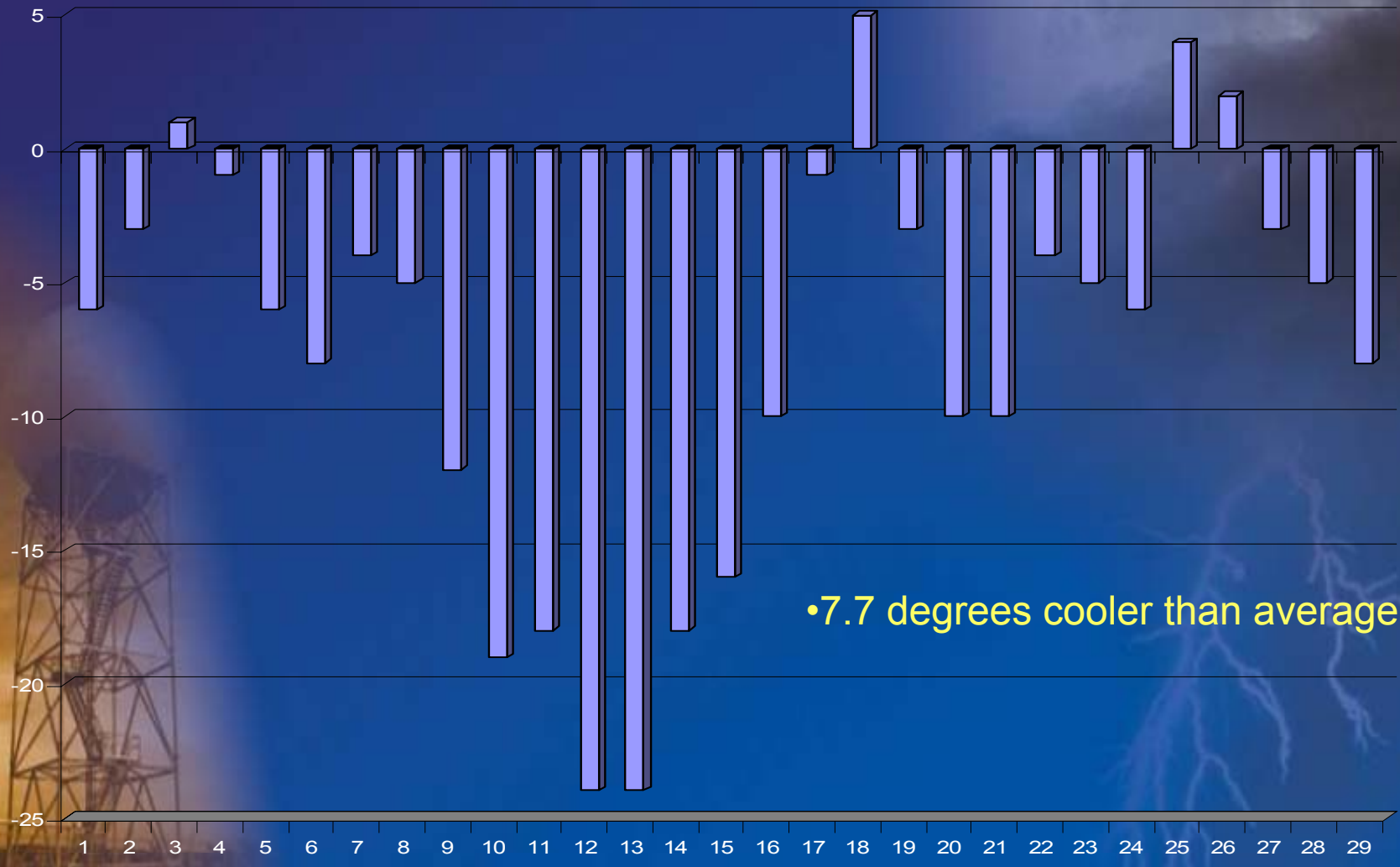
Salt Lake City Temperature Departure from Normal



- 6.7 degrees cooler than average

February

Salt Lake City Temperature Departure from Normal

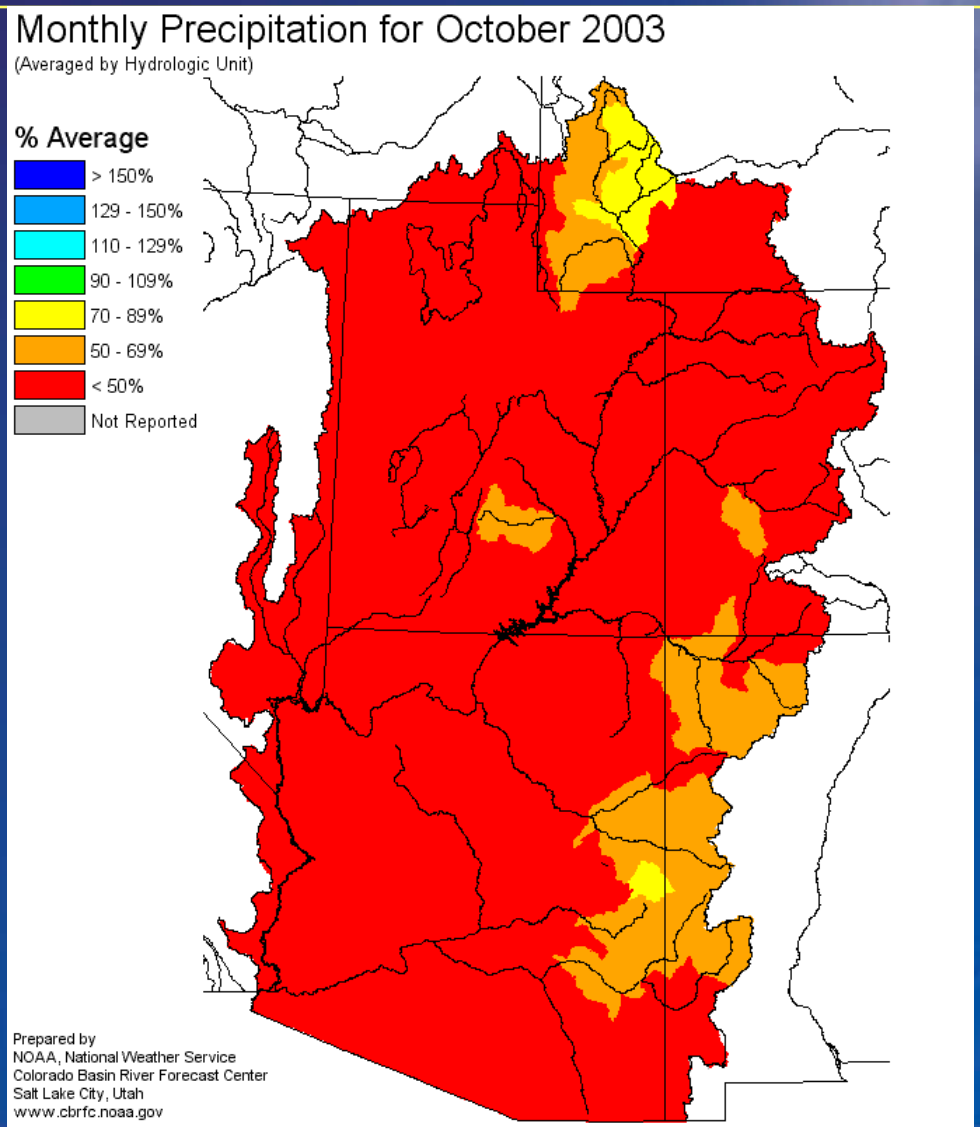


- 7.7 degrees cooler than average

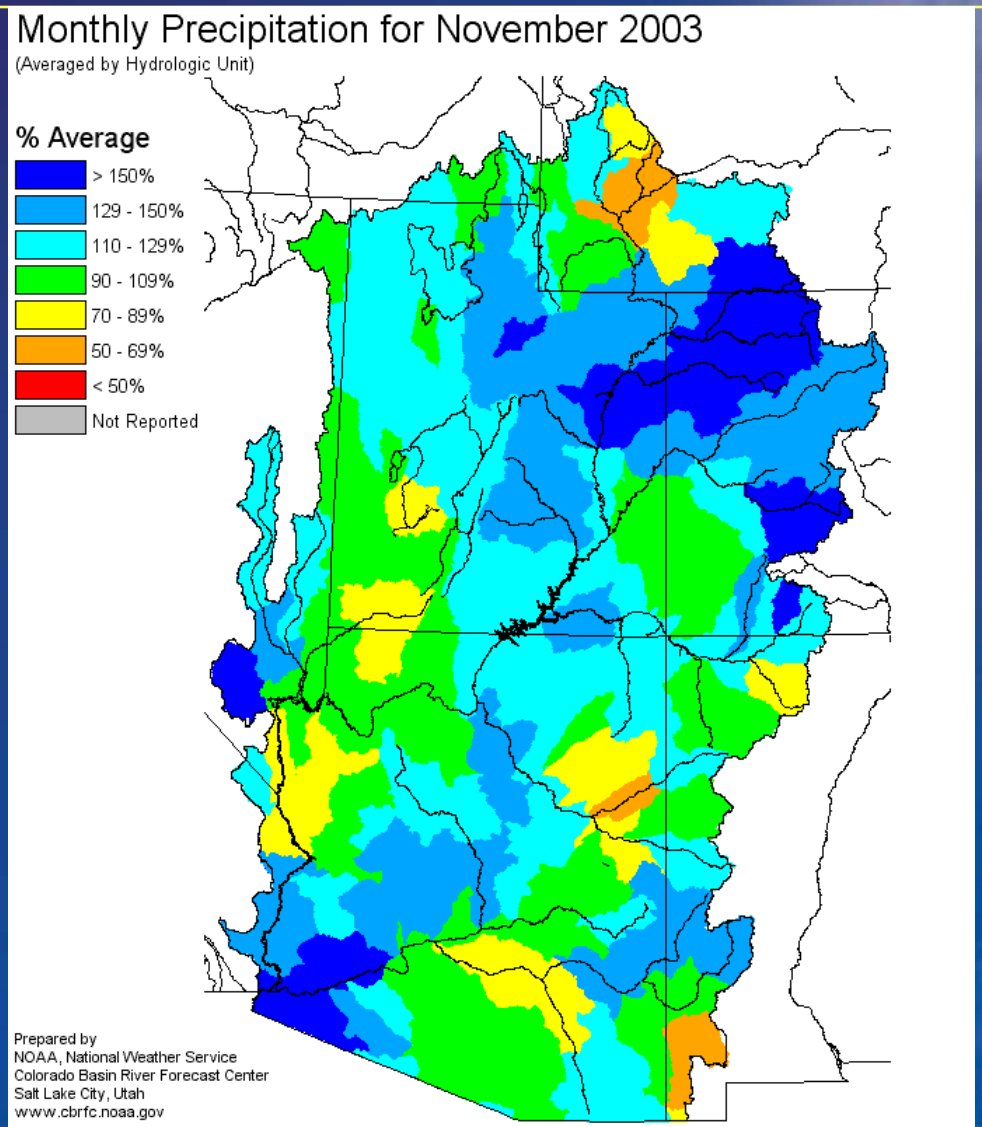
Hydrologic Outlook

- Precipitation

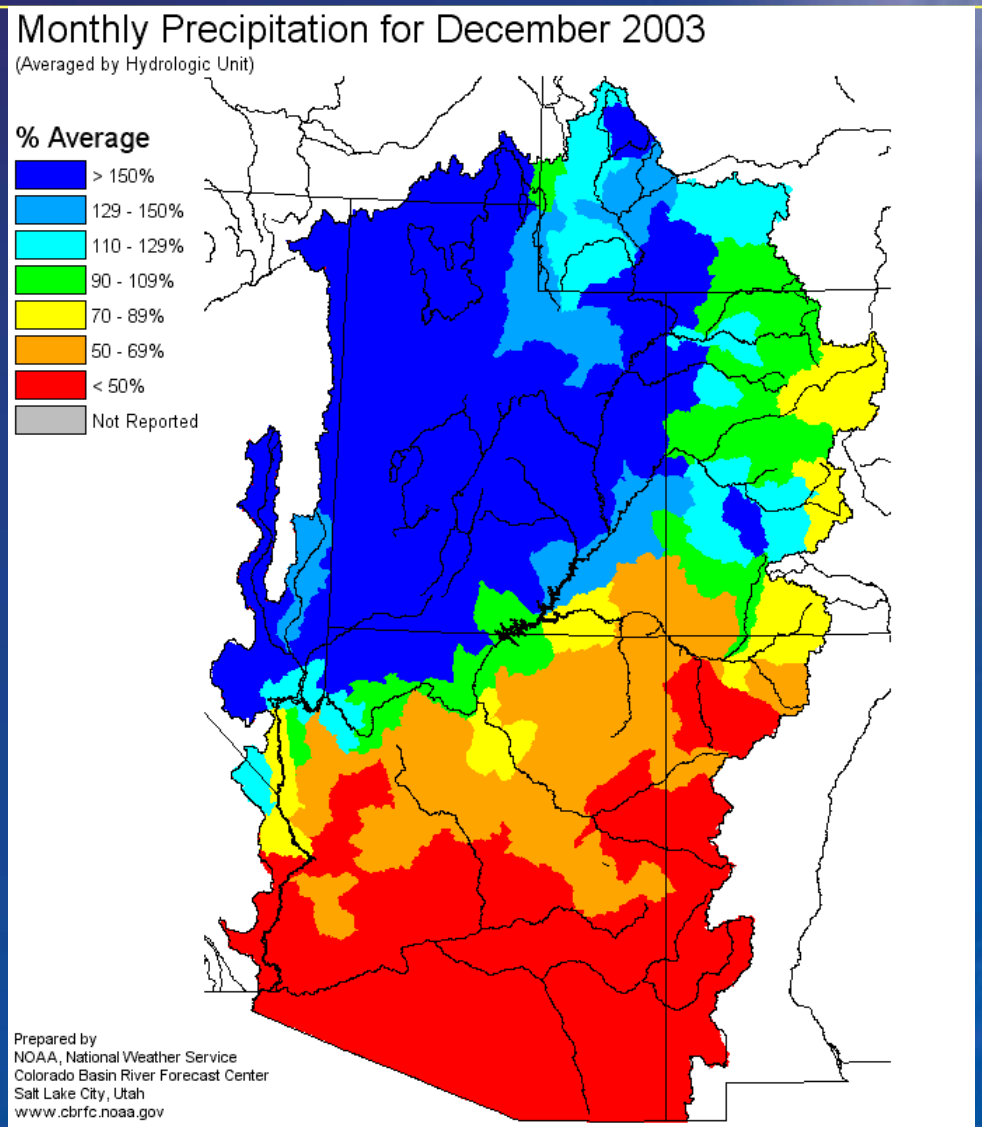
Precipitation



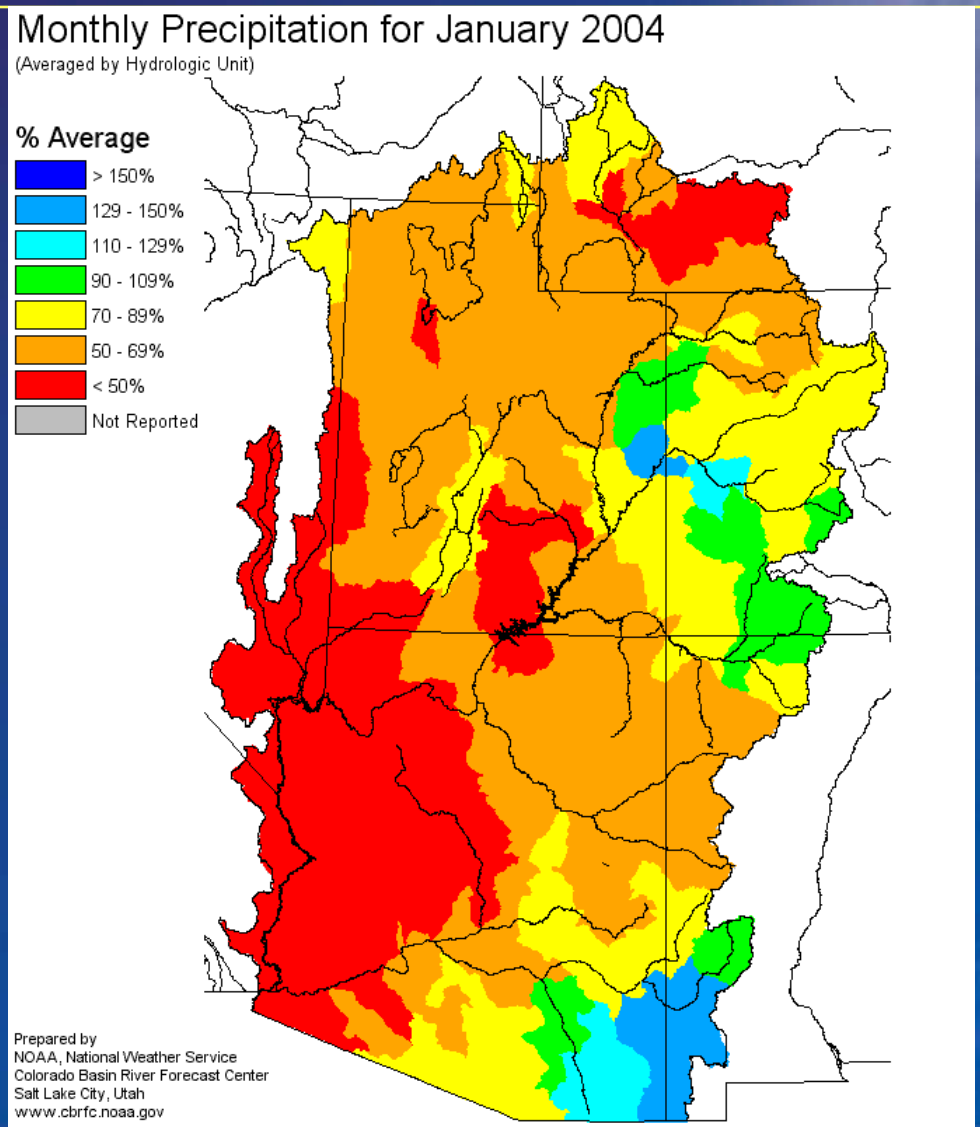
Precipitation



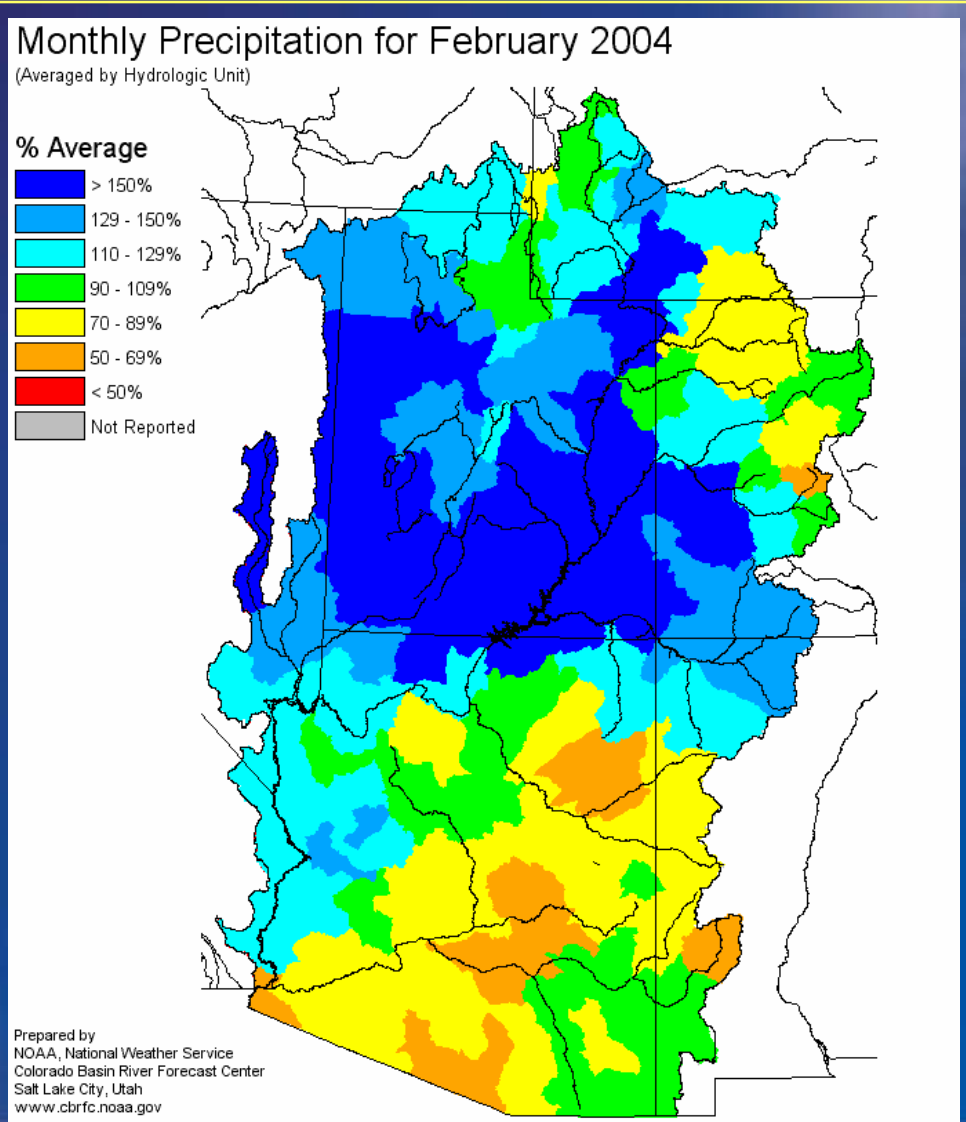
Precipitation



Precipitation



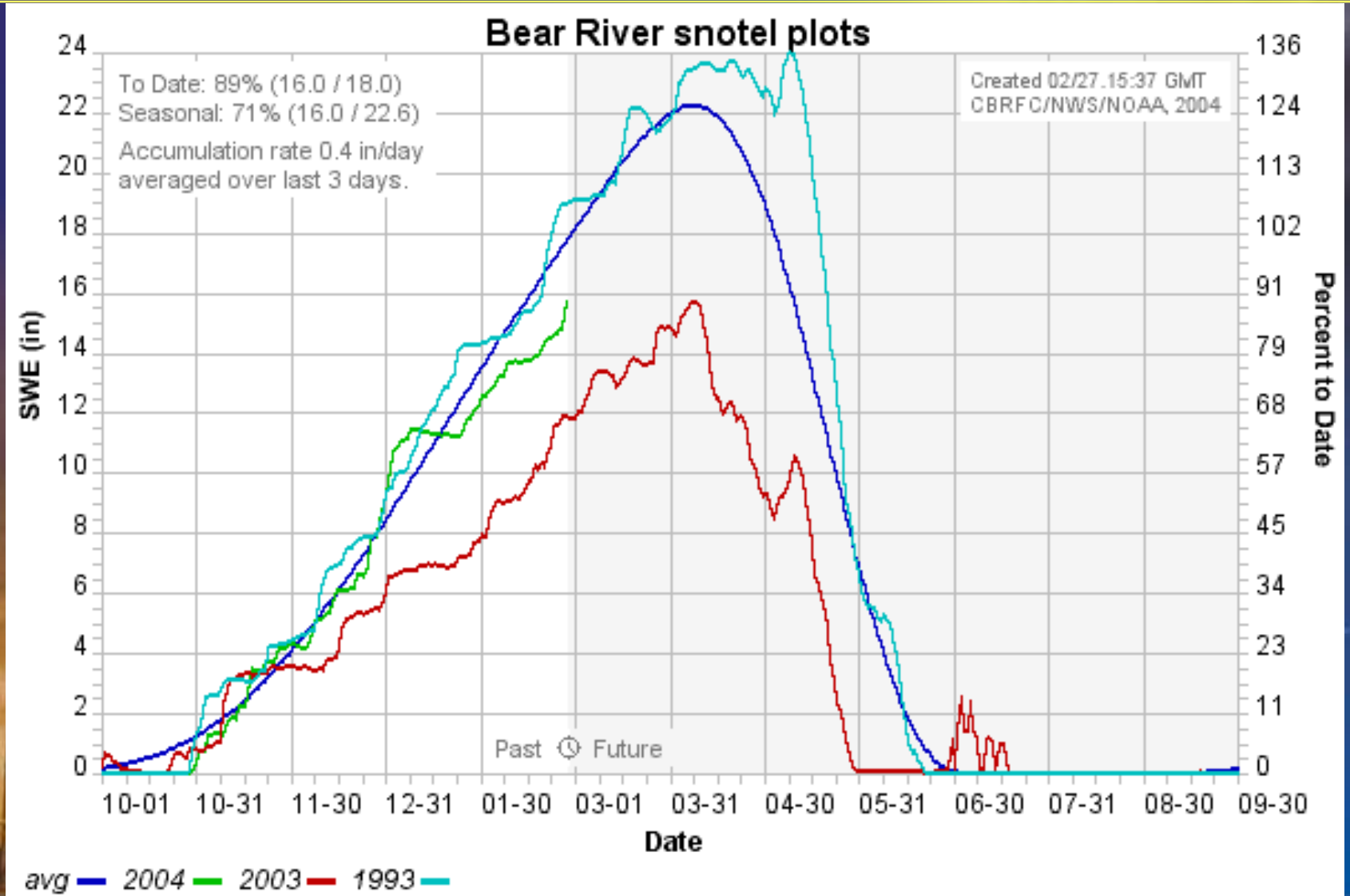
Precipitation



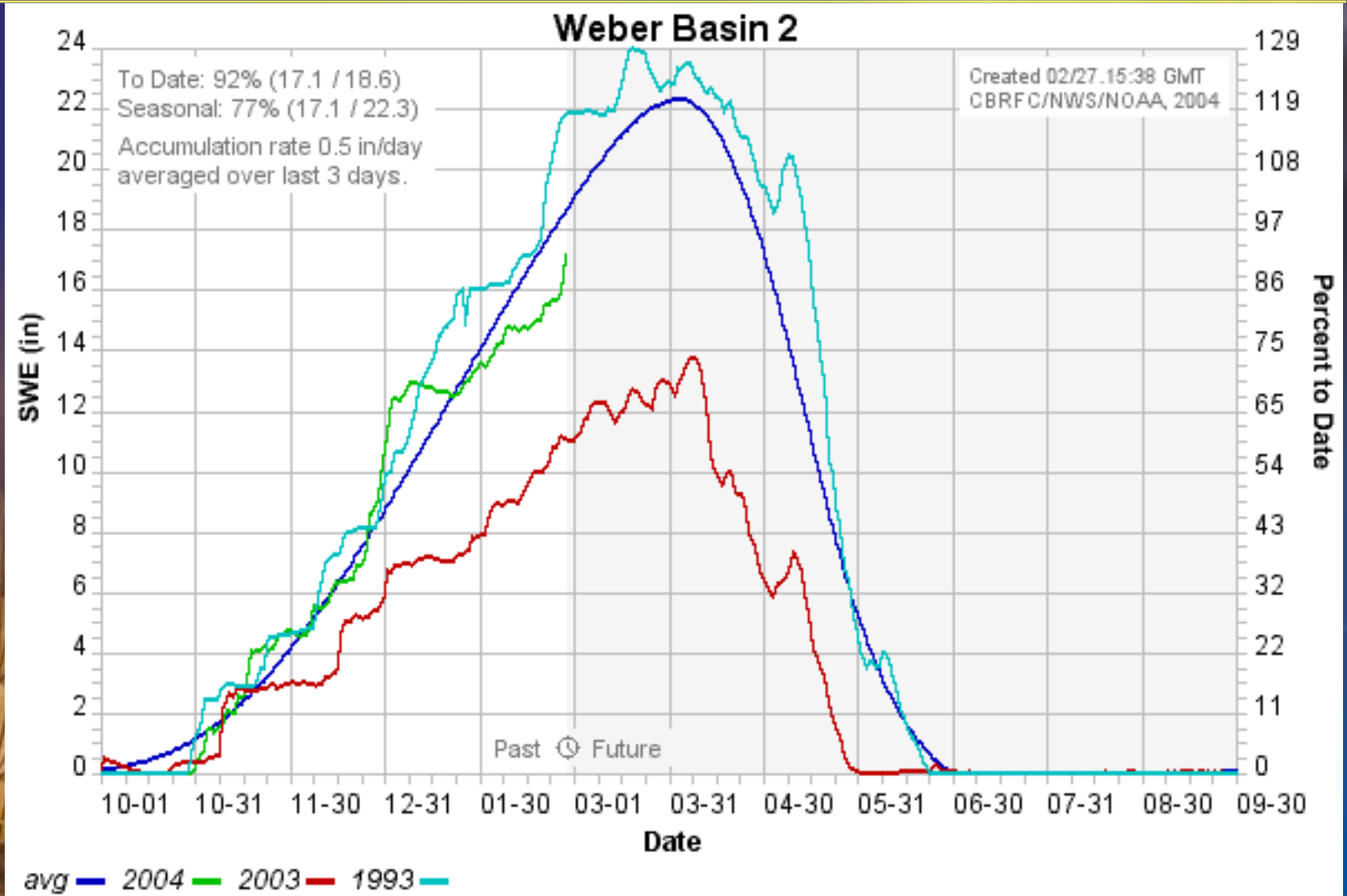
Hydrologic Outlook

- Snowpack

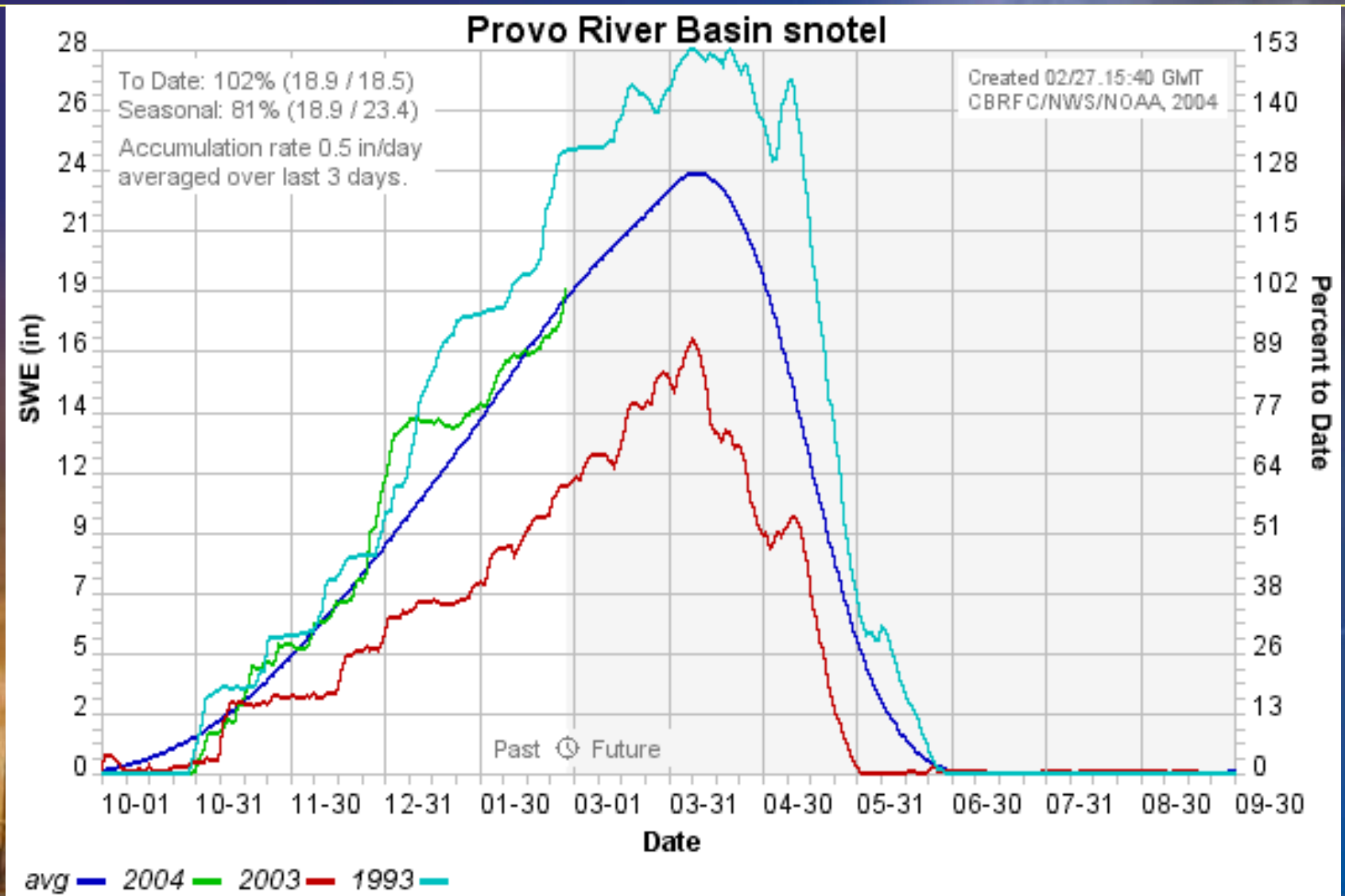
Hydrologic Outlook
Bear River Basin Snow



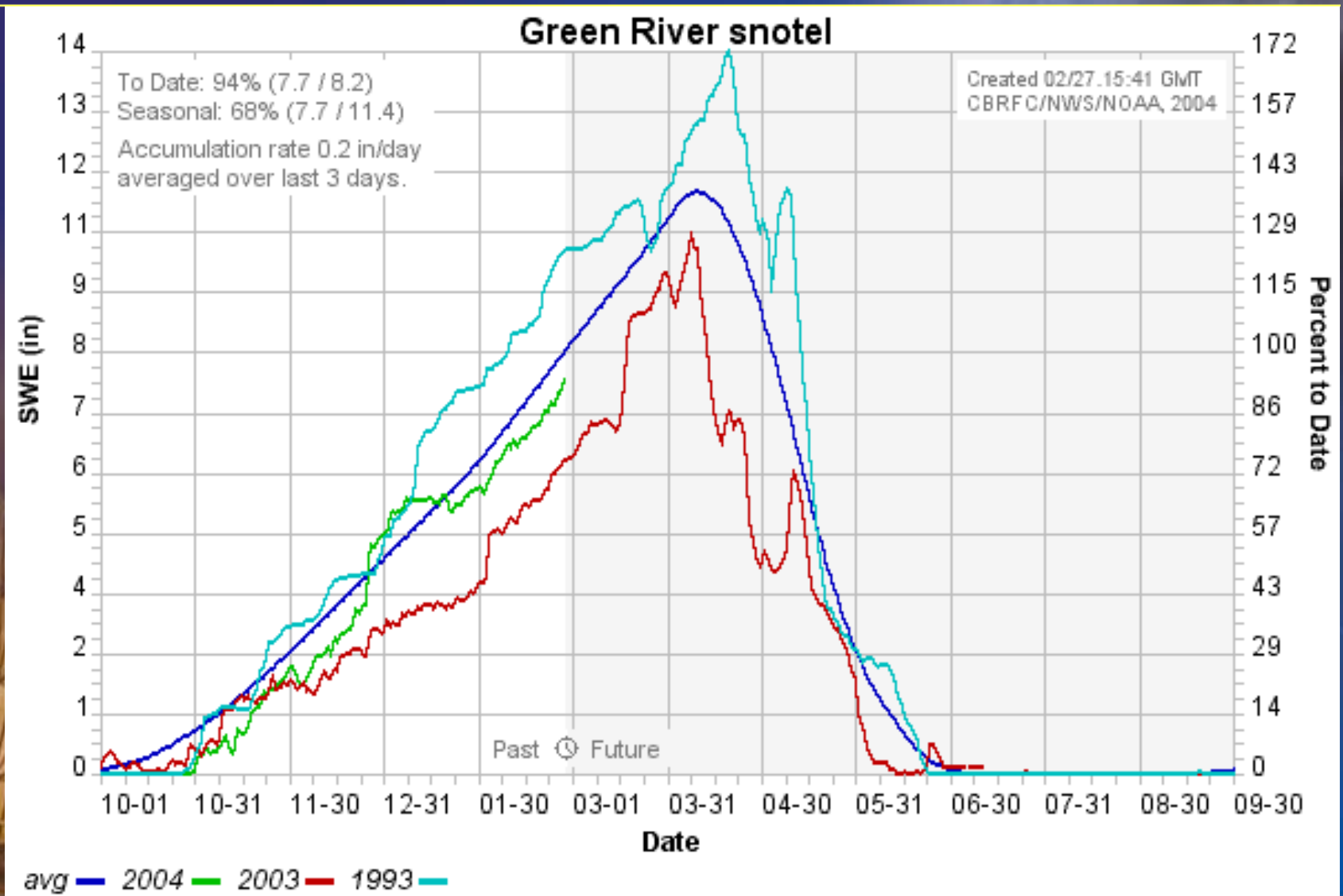
Hydrologic Outlook
Weber River Basin Snow



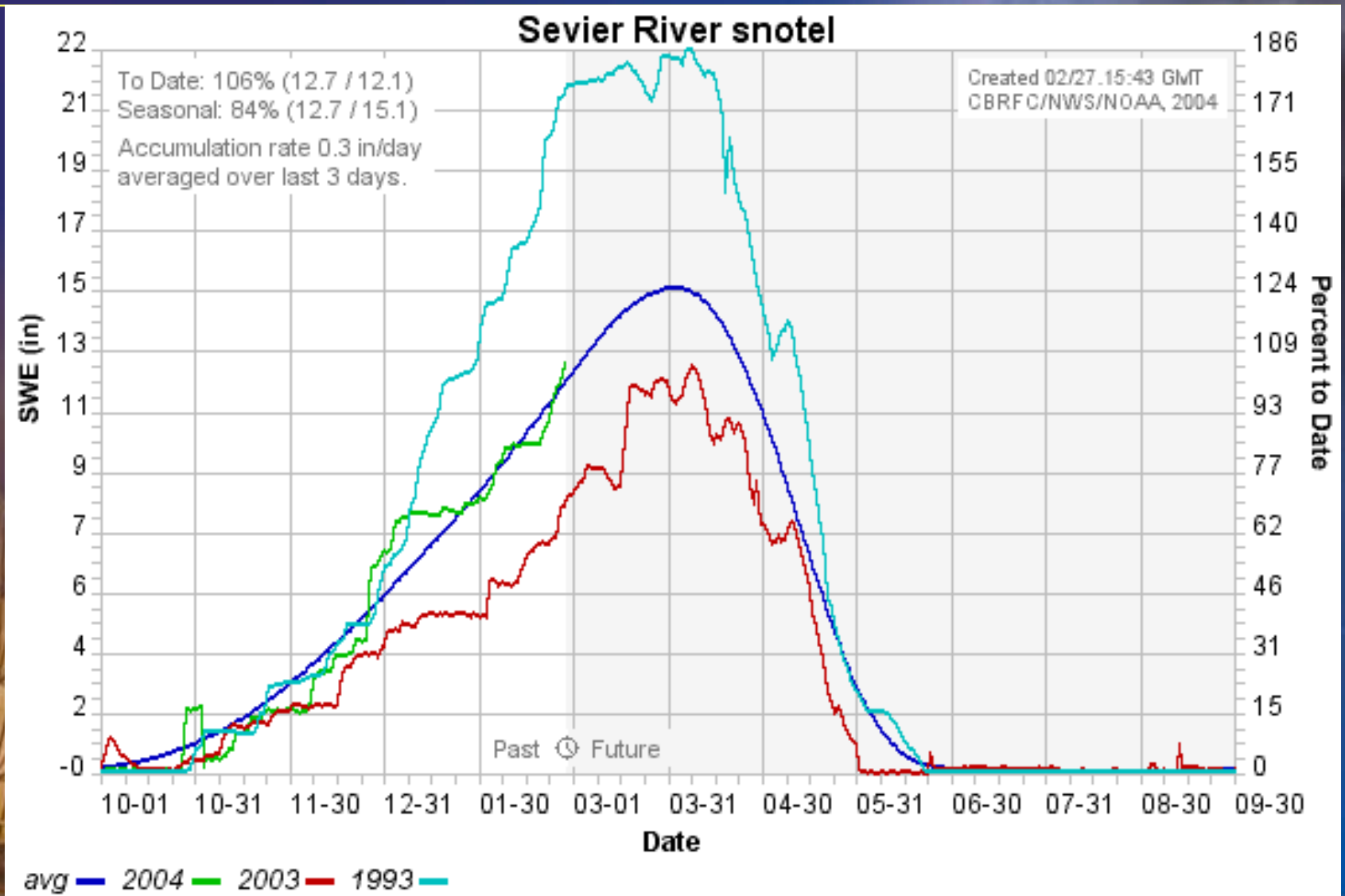
Hydrologic Outlook
Provo River Basin Snow



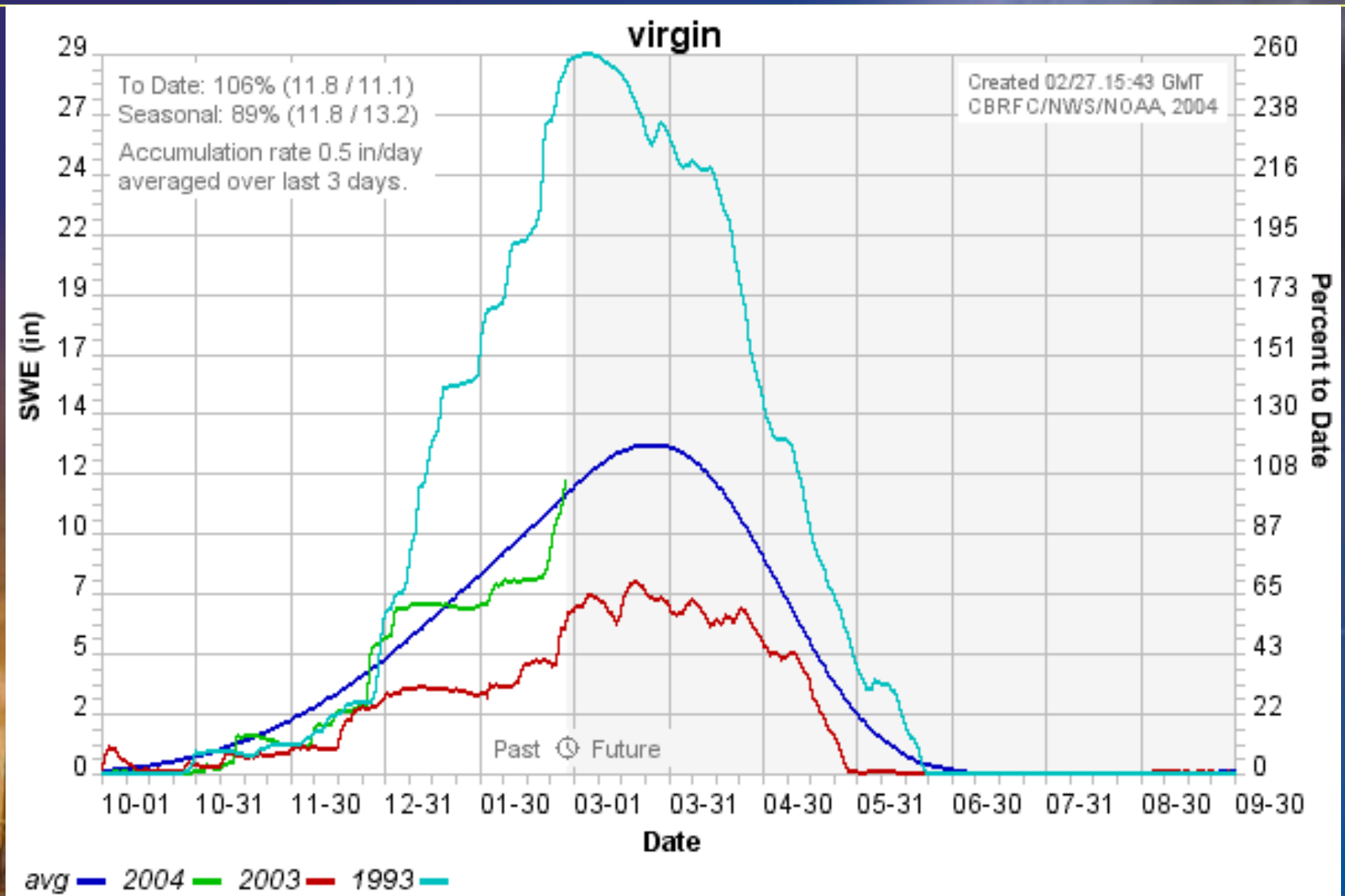
Hydrologic Outlook
Green River Basin Snow



Hydrologic Outlook
Sevier River Basin Snow



Hydrologic Outlook
Virgin River Basin Snow

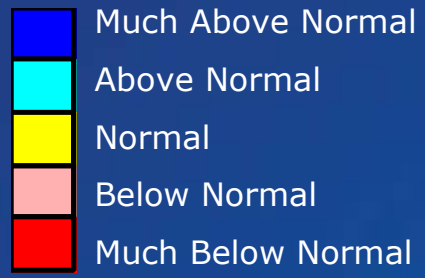


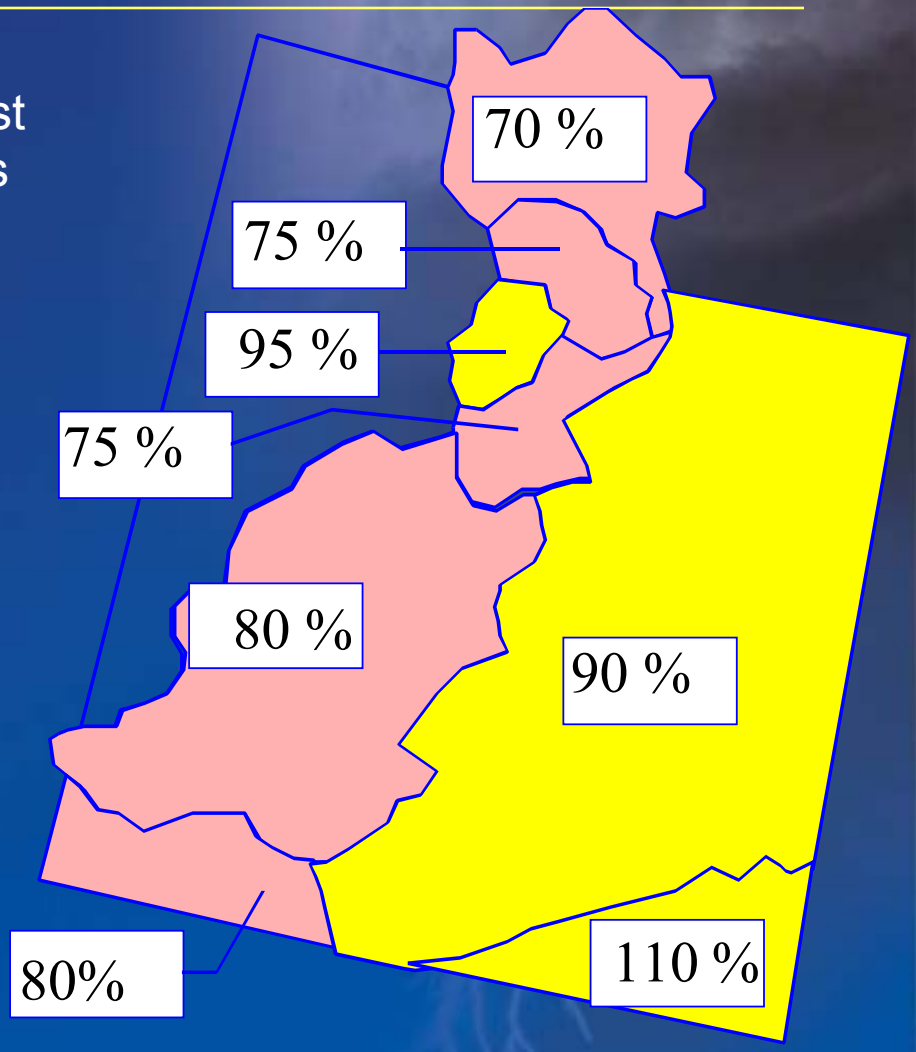
Hydrologic Outlook

- Water Supply Forecast

Forecasted Utah Spring Snowmelt Runoff Volumes

March 1st 2004
April Through July Volume Forecast
Percent of 30 Year Average Flows
Utah Area River Basins





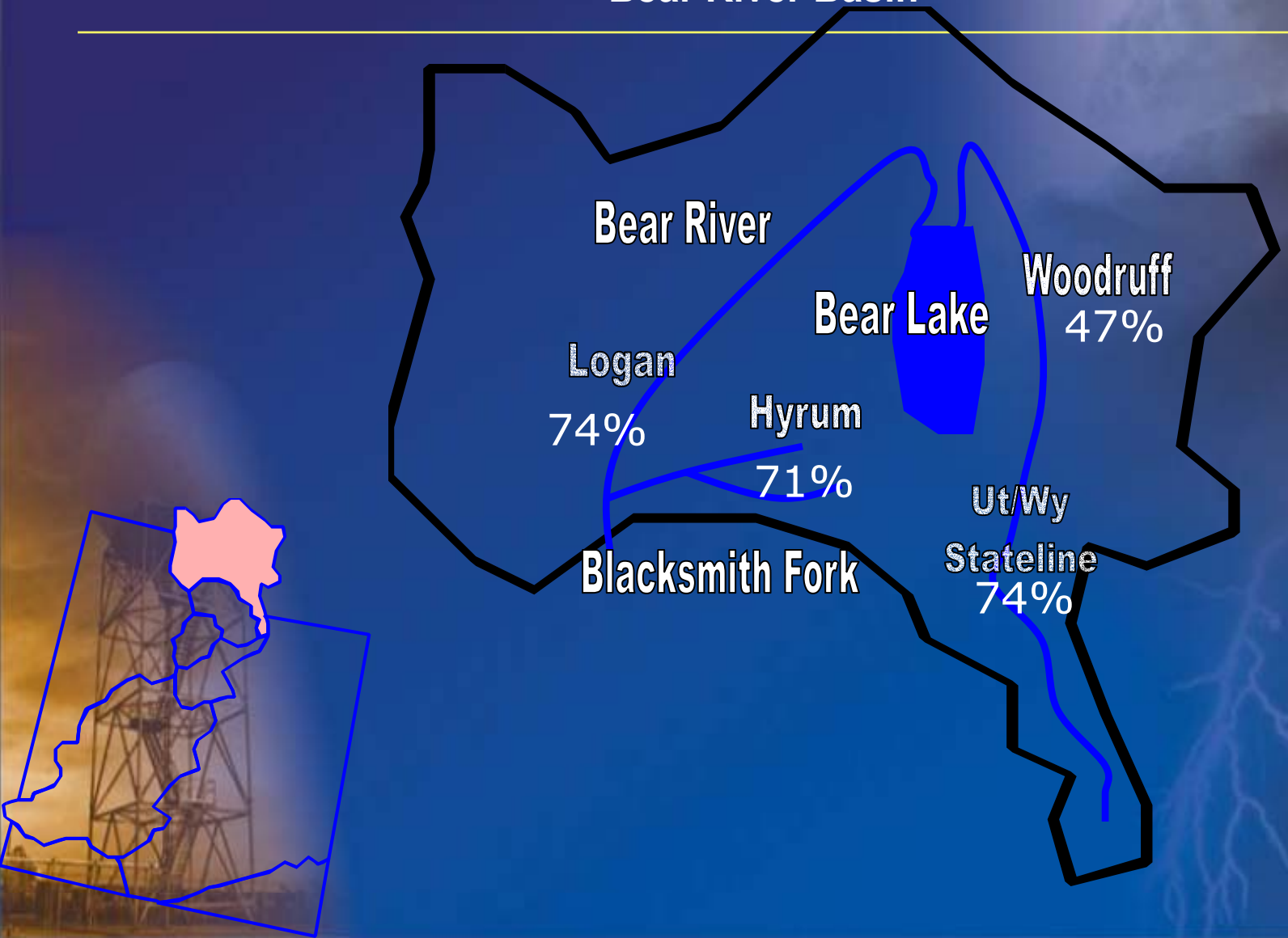
Forecasted Utah Spring Snowmelt Runoff Volume

March 1st 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

Bear River Basin



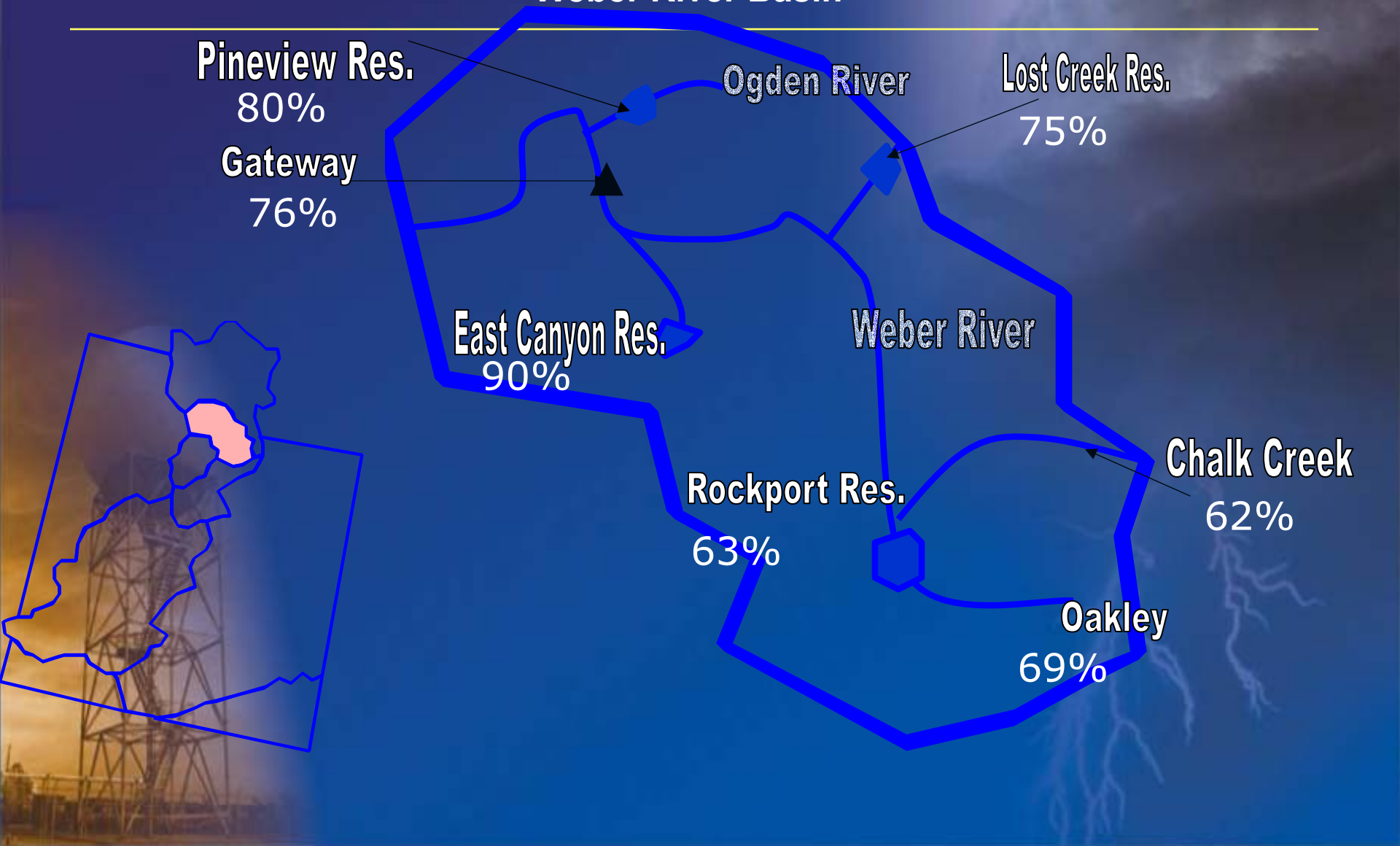
Forecasted Utah Spring Snowmelt Runoff Volume

March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

Weber River Basin



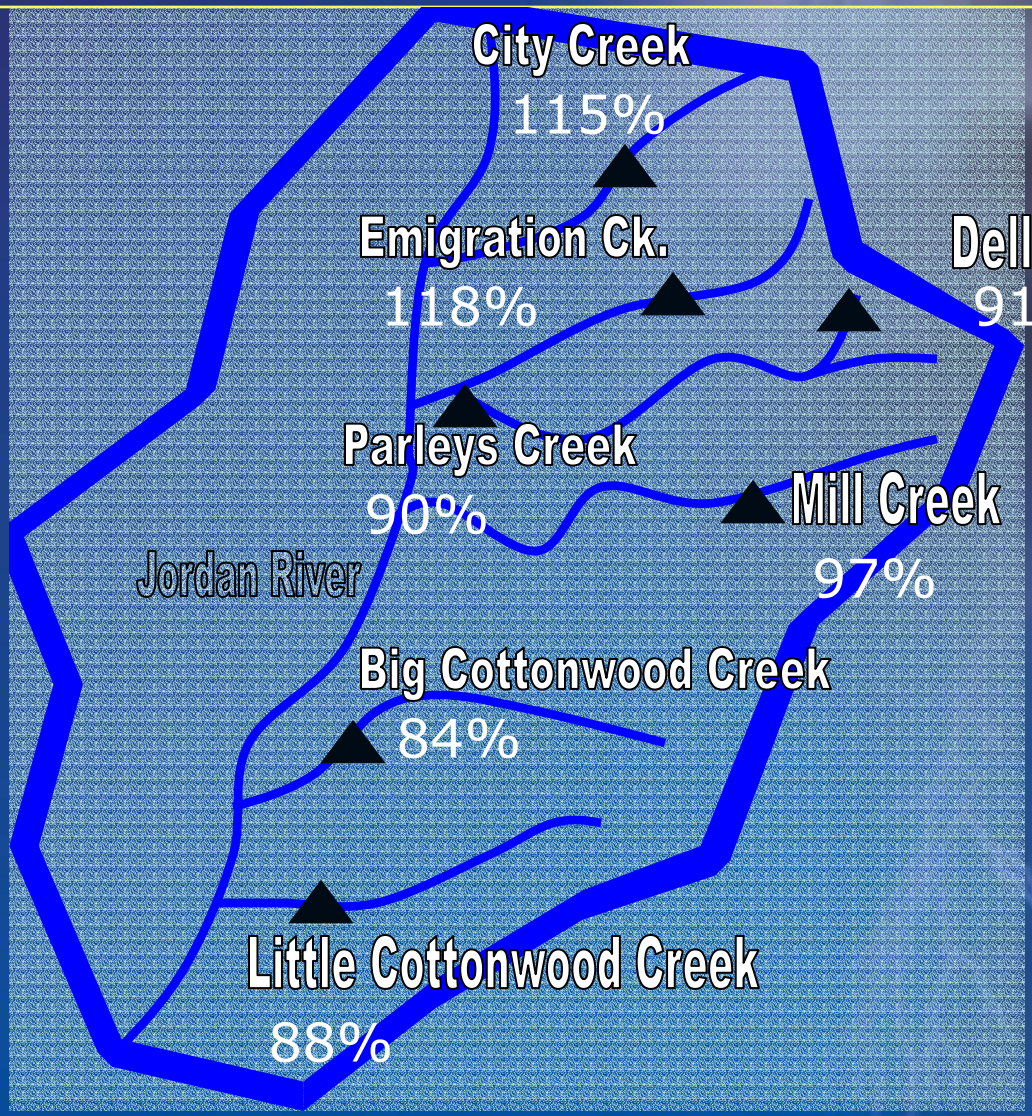
Forecasted Utah Spring Snowmelt Runoff Volume

March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

Six Creeks River Basin



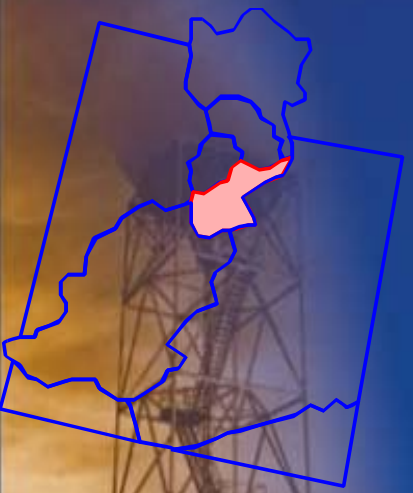
Forecasted Utah Spring Snowmelt Runoff Volume

March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

Provo River Basin



Jordanelle Res
70%

Deer Creek Res
76%

Woodland
72%

American Fork
81%

Provo River

Castilla
81%

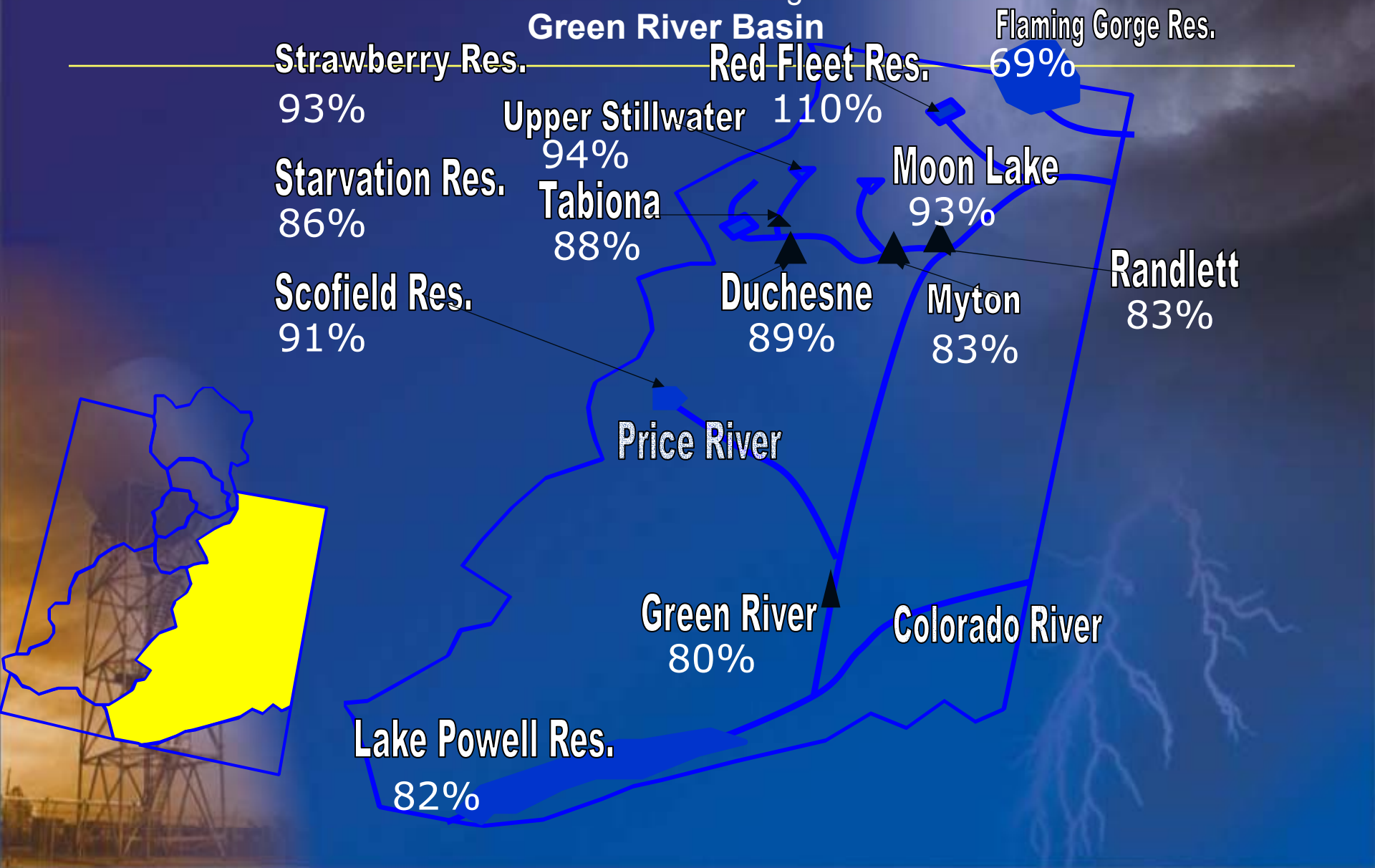
Utah Lake
78%

Forecasted Utah Spring Snowmelt Runoff Volume

March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows



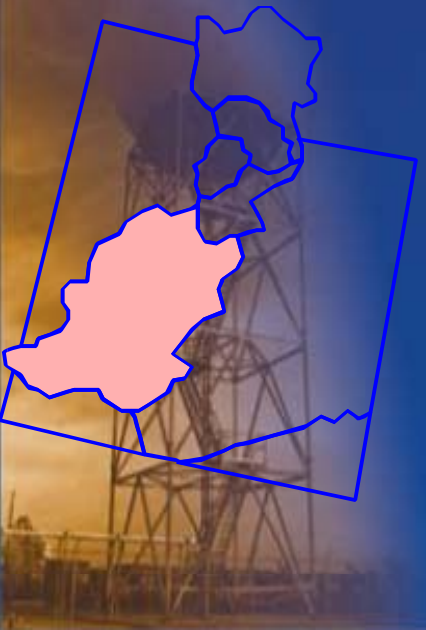
Forecasted Utah Spring Snowmelt Runoff Volume

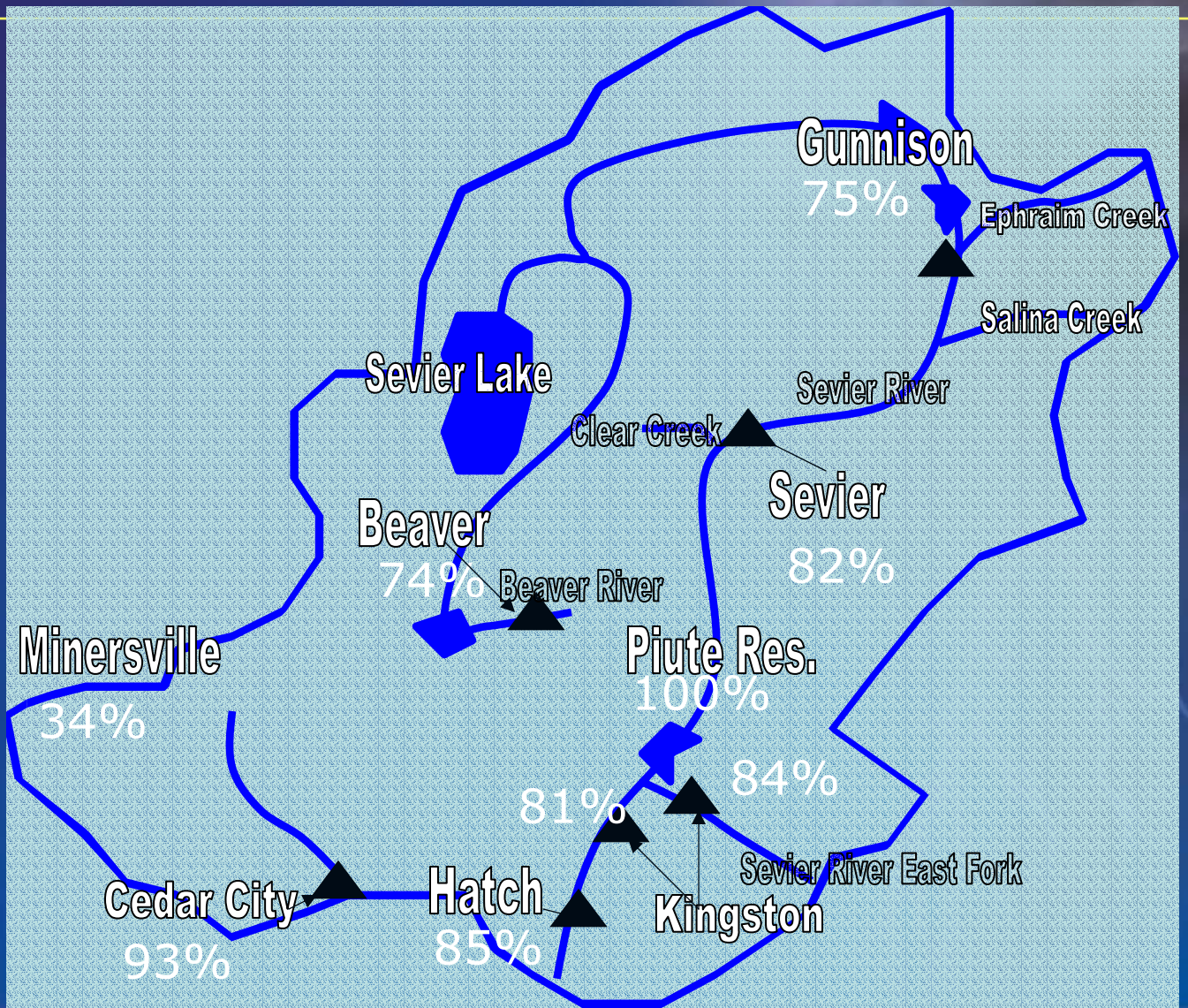
March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

Sevier River Basin





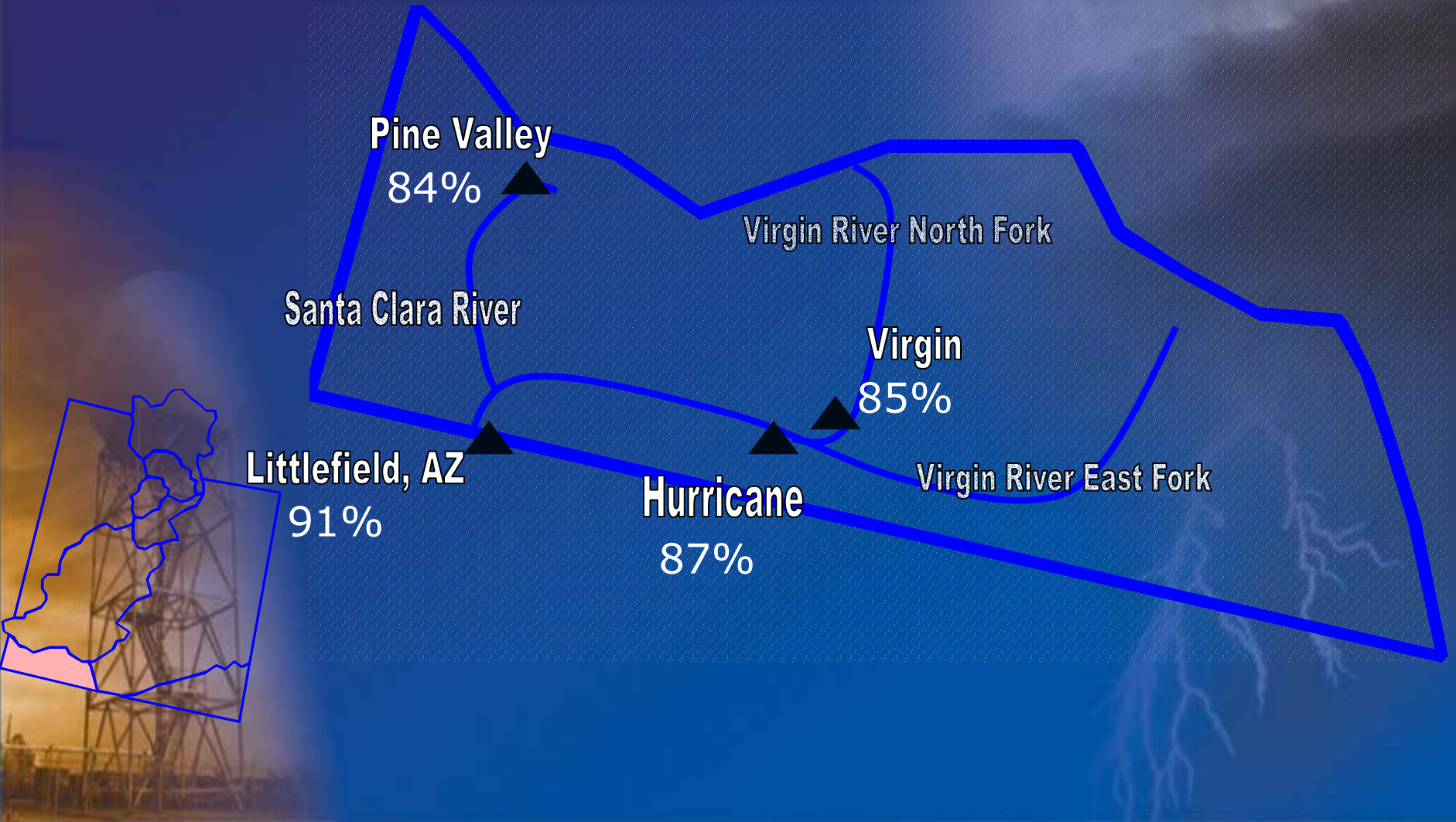
Forecasted Utah Spring Snowmelt Runoff Volume

March 1st, 2004

April Through July Volume Forecast

Percent of 30 Year Average Flows

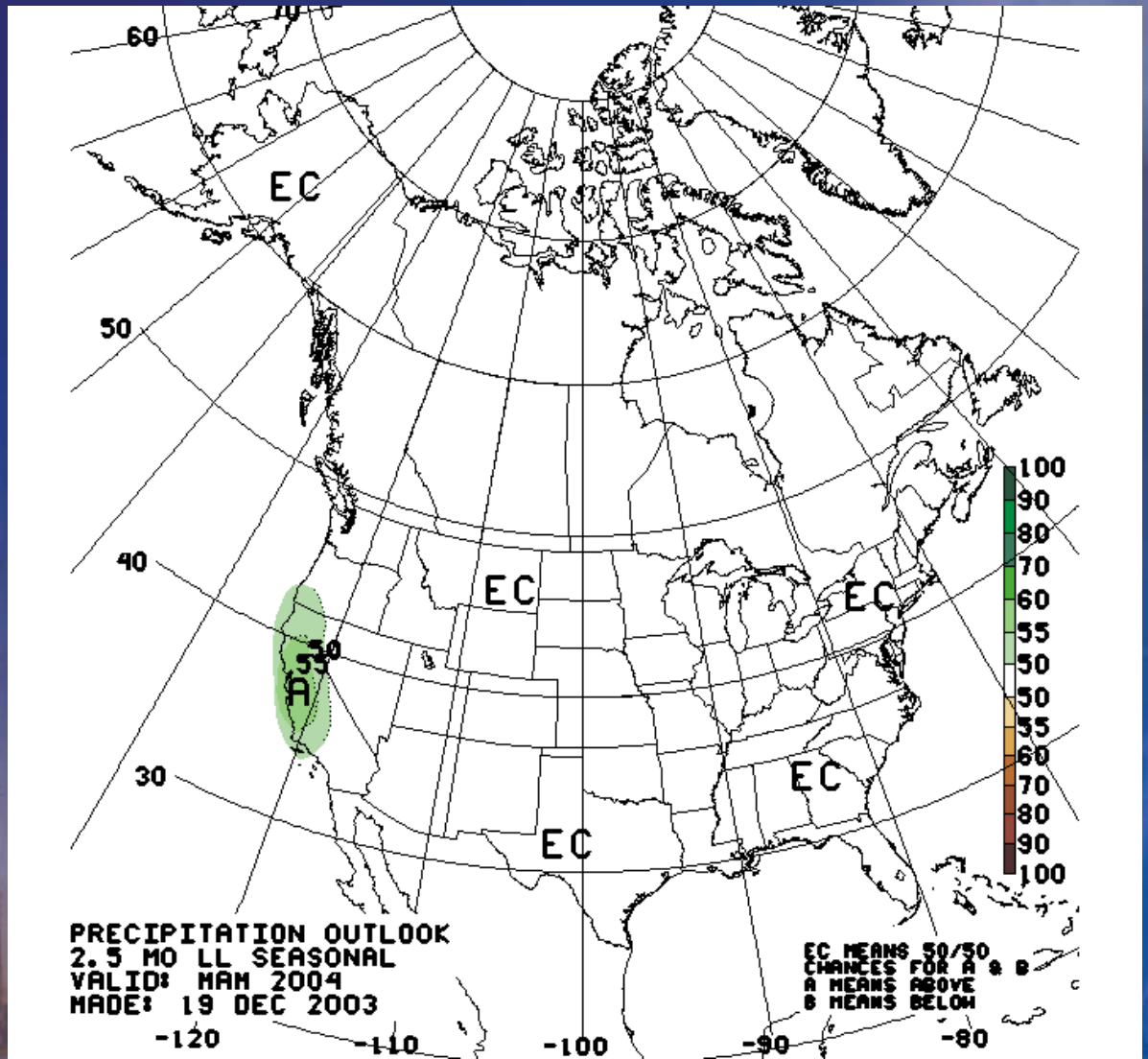
Virgin River Basin



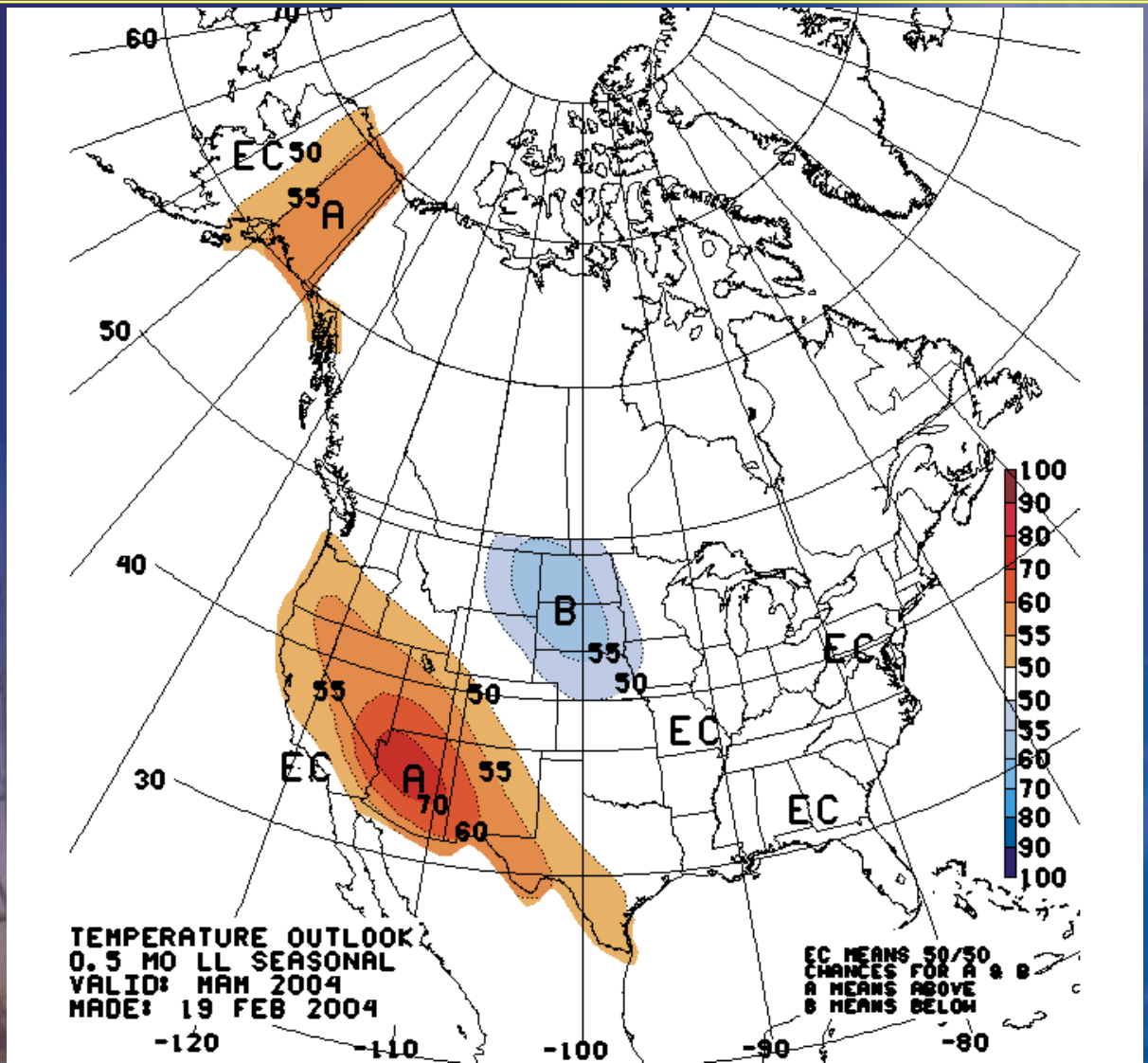
Hydrologic Outlook

- Long Range Forecast

Long Range Precipitation Forecast
March – April - May



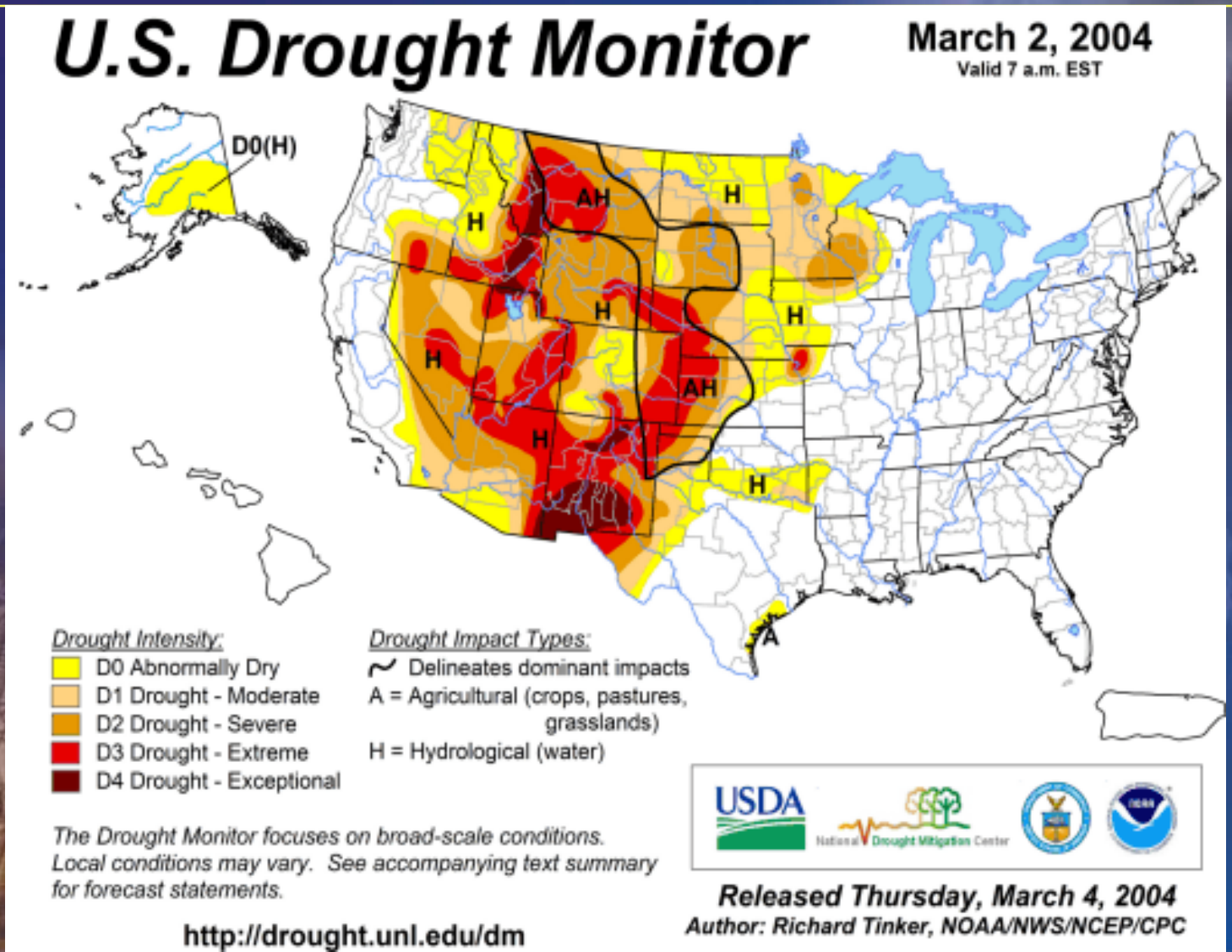
Long Range Temperature Forecast
March – April - May



Hydrologic Outlook

- Drought

Hydrologic Outlook



Contact Information

http://www.wrh.noaa.gov/Saltlake/river/presentations

Additional Information

Contact

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